

Yamuna

A Study of Its Links from the Sarasvati Findings



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Introduction

This paper focusses on the rivers, and their interconnections and linkages, especially Yamuna and Sarasvati, which flowed through the Kuru territories as described primarily in the Mahabharata, but also in the Vedas. Apart from the rivers, the paper will examine the cities, towns, villages, holy-spots (tirtha-sthans), forests and lakes mentioned in the Mahabharata as falling in this territory, also known as Kuru Rashtra with its two divisions viz. the Eastern Kuru and the Western Kuru (Kuru-jangala) separated by the Yamuna River. The paper explores the question of linkage of Yamuna with Sarasvati using literary evidence corroborated by hydrology as well as by eolian activity, tectonics, near-surface geology and geophysics and mineralogy.

It then makes an in depth analysis of the Kuru territory based on the references in the Mahabharata, resulting in the most probable location of the places mentioned as belonging to the Kuru territory. Kurukshetra region, which is part of the Kuru-territory is studied in more detail due to the density

of places mentioned in this region. The paper touches upon the geographical extent of the settlements so far excavated all over India and its western neighborhood and asserts that it can no longer be termed as 'Harappan' culture as it is a Western Indian or a pan-Indian culture. The term IVC (Indus Valley Culture) is suited to describe only a sub-region of it, which in Mahabharata is known as the Sindhu-desha ruled by king Jayadratha. The term SVC (Sarasvati Valley Culture) similarly has to be seen as a sub-region known to Mahabharata as Kuru-Rashtra. The term SSC (Sindhu-Sarasvati Culture) describes a wider region, which was the region of activity of the Aditya-Aila-Puru-Bharata-Kuru lineage of kings described in Mahabharata, with its kings like Samvarana migrating from SVC (Kuru territories) to IVC (Sindhu territories).

The paper asserts that the Kuru territory is to be considered more ancient in the SSC, because of the presence of the oldest site Bhirrana (since 7570 BCE) and the largest site Rakhigarhi (since 4600 BCE) in this region.

The paper then makes a detailed analysis of the pilgrimage of Balarama along the Sarasvati, which

culminates at a spot on Yamuna corroborating the understanding about Sarasvati based on the latest hydrology studies. The analysis clearly indicates that the river had dried up in the middle in the arid region, which is now known as the Thar Desert. It also surprisingly shows up high density of places on the southern banks of Sarasvati in the Kuru territory corroborating well with the archaeological studies, which concludes this same region as being the most densely populated region with highest density of settlements / excavated sites. The paper then tries to answer the question about Sarasvati being a snow-fed versus rain-fed river based on literary evidences, which corroborate the hydrology studies. The paper then briefly touches upon the IE migrations from the densely populated Sarasvati-Yamuna region. Based on the studies of Avestan and Greek texts, the Daityas and Danavas, who coexisted with the Adityas in the Sarasvati-Yamuna region are identified respectively with the Avestans (described in the Avestan texts like Vendidad) and the Greek-Danaans (described in the Iliad and Odyssey).

The paper then briefly analyze the Aditya-Aila-Puru-Bharata-Kuru lineage since the Sarasvati-Yamuna region is described as the territory of the Adityas

(like Indra and Varuna), Manu / Yama (Yima), the matriarch plus goddess Ila – the originator of the Aila lineage, the kings in the line of Puru, Bharata and Kuru. The paper shows that the region was inhabited by a mixed ancestry consisting of the Nagas, Purus and the Yadus with Adityas, Ailas and Nagas being ancestral to both Yadus and Purus.

Since all the events under study falls under the Holocene period, the paper briefly explores the chronology starting from the event of Manu's flood and the growth of the excavated settlements from farming communities to city life and how it corroborates with the events described in the Mahabharata. As a frame of reference for this Holocene epoch, the 12,000 year long Markandeya Yuga system starting at 12,500 BCE developed by the author is used.

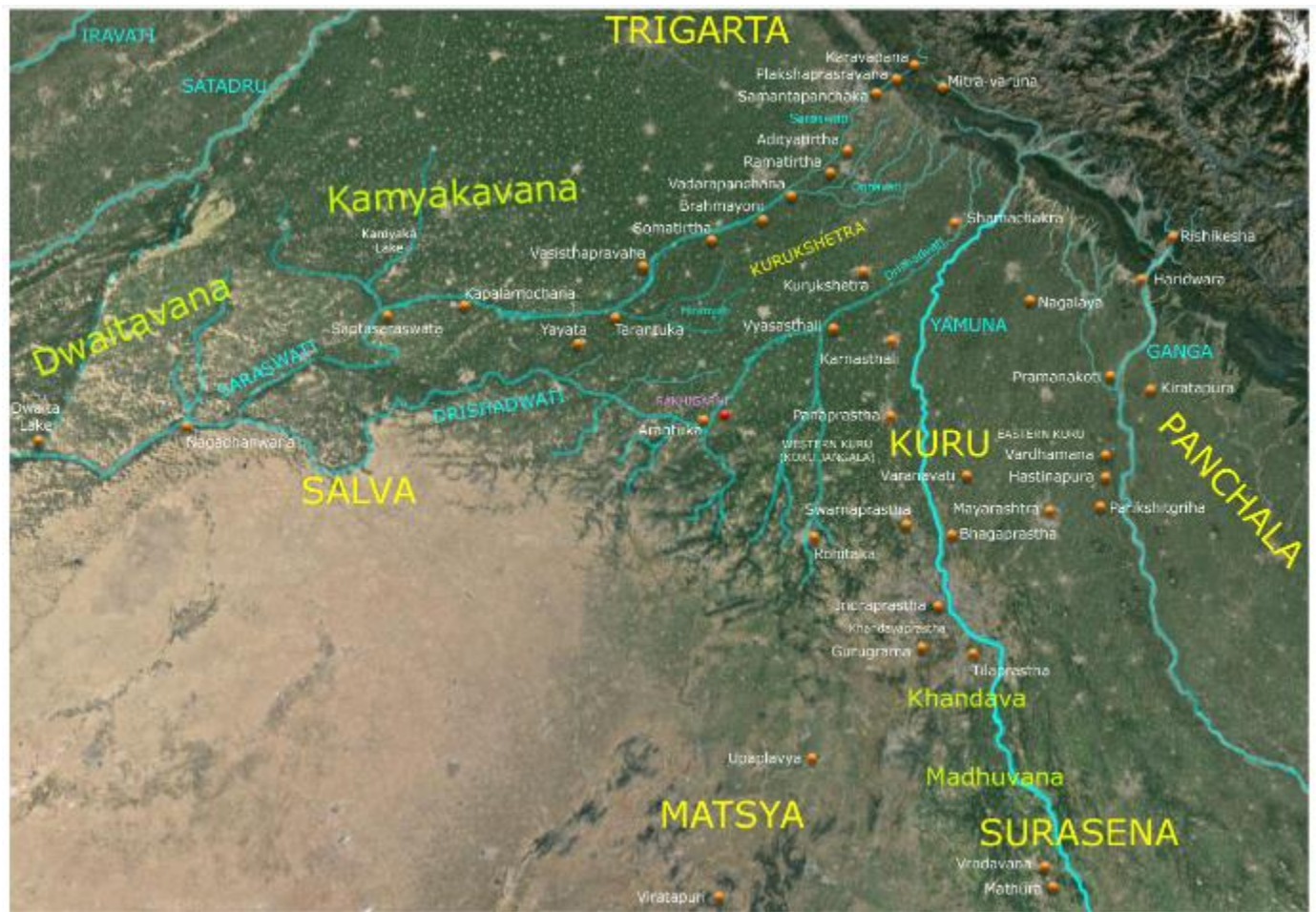
Finally, using the accumulated literary evidence available in the Rigveda, Mahabharata and the Puranas, the paper connects the sites like Rakhigarhi (largest excavated site) and Bhiranna (oldest excavated site) belonging to the Kuru-territory with the continuous occupation of the Aditya (pre-Aila) – Aila – Puru – Bharata – Kuru kings.

The Significance of Yamuna in Kuru Territory

Ganga, Yamuna, Drishadvati and Sarasvati are the major rivers of the Kuru Territory. Mahabharata also mentions about other rivers like Oghavati and Hiranvati, which are considered as the tributaries of Sarasvati flowing through Kurukshetra. Among all these rivers, Yamuna River is the central river of the Kuru Rashtra.

Yamuna divides the Kuru territories into two halves, Western Kuru with its capital Hastinapura and the Eastern Kuru with its capital Indraprastha. Places like Tilaprastha (Tilpat), Indraprastha (Indraprast), Swarnaprastha (Sonipat), Bhagaprastha (Baghpat) and Panaprastha (Panipat) are situated on either banks of Yamuna. Tilaprastra was, etymologically, the place of cultivation of Tila from which Taila (oil) is extracted. Indraprastha was the major city on the banks of Yamuna & the capital of the Pandavas. The city was probably named after the former ruler of the place viz. the Vedic Indra himself. Swarnaprastha was the marketplace of jewelers and gold workers. Bhagaprastha was the locale of the

main deity Bhaga (one of the Adityas and later merged with the cult of Shiva worship using Shiva Linga) worshipped during the time of the Pandavas. Panaprastha was the marketplace of the Panis (Vanis / Vaniks), the traders. Panis are mentioned in the Vedas as a tribe of traders, much like the Yadavas in Dwaraka.



Map 1: The rivers, cities, towns, villages, holy-spots (tirta-sthan), lakes and forests of the Kuru Territory (Kuru Rashtra) with the neighboring kingdoms,

deserts (Maru) and mountains (Himalayas). Created based on the study of the Mahabharata and the Hydrology of the Sarasvati-Yamuna area (Haryana).

Yamuna-Sarasvati Drainage Links

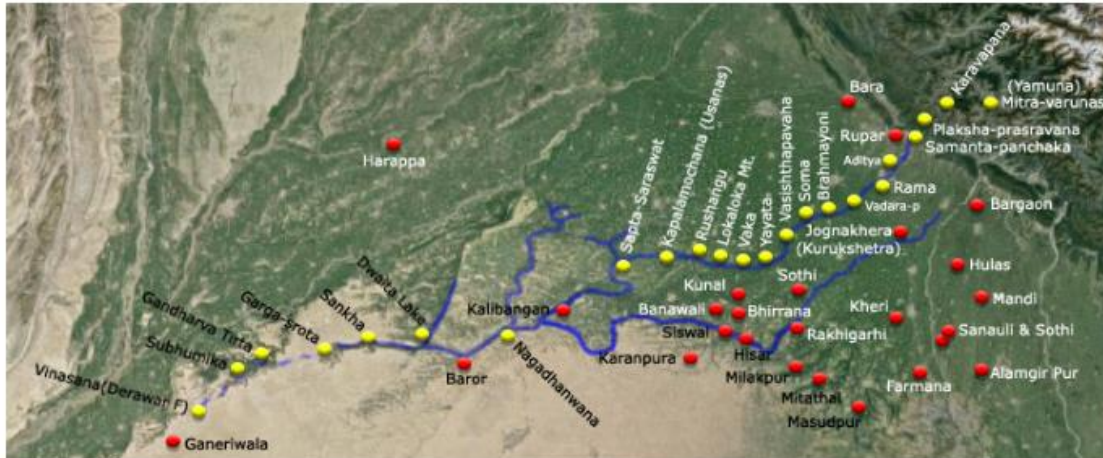
- 1.No channel of Yamuna merged with Sarasvati as per literary evidence or as per hydrology. (Ref. Peter D Cliff)
- 2.Source of Sarasvati close to the source of Yamuna as per literary evidence (Balarama's Pilgrimage) and as per hydrology (ref. mbh.33-52, Peter D Cliff)
- 3.The trail of Sarasvati ends at Shivaliks as per literary evidence (Balarama's Pilgrimage – mbh.33-52) and as per Hydrology
- 4.Place names like Samantapanchaka at the source of Sarasvati as per literary evidence corroborate with the drainage system of Sarasvati (Gagghar-Hakra) with 5 or more tributaries at the foothills of Shivaliks evident in the hydrology

5. Kamyaka and Dwaita forests mentioned in the regions north west of Sarasvati, where paleo channels of Satadru to Sarasvati flowed causing wetness of soil
6. Dwaita lake and Kamyaka lakes mentioned in Mahabharata thus identifiable with remnant lakes formed in such paleo-channels
7. Changes in the direction of the course of Sarasvati (turning eastward, turning westward, southward flow, etc.) in Kuru region described in literature (Balarama's pilgrimage – mbh.33-52) evident in the current trail of Sarasvati

Kuru Territory as per Mahabharata

Mahabharata defines Kuru territory as the land between Ganga in the east, Sarasvati in the west and the Himalayas in the north. Kamyaka and Dwaita Forests lied to its west beyond Sarasvati. Territories of Panchala lied to its east, Surasena to its south-east, Matsya to its south and Salva to its south-west. It was divided by Yamuna with Kurujangala in the west and Kuru proper in the east of Yamuna.

Kurujangala contained Kurukshetra in the north and Khandava in the south.



Map 2: The yellow colored spots are the places mentioned in the Balarama's pilgrimage along the Sarasvati River. The red spots are the excavated sites. The high density of settlements in the Kuru-region is clearly evident.

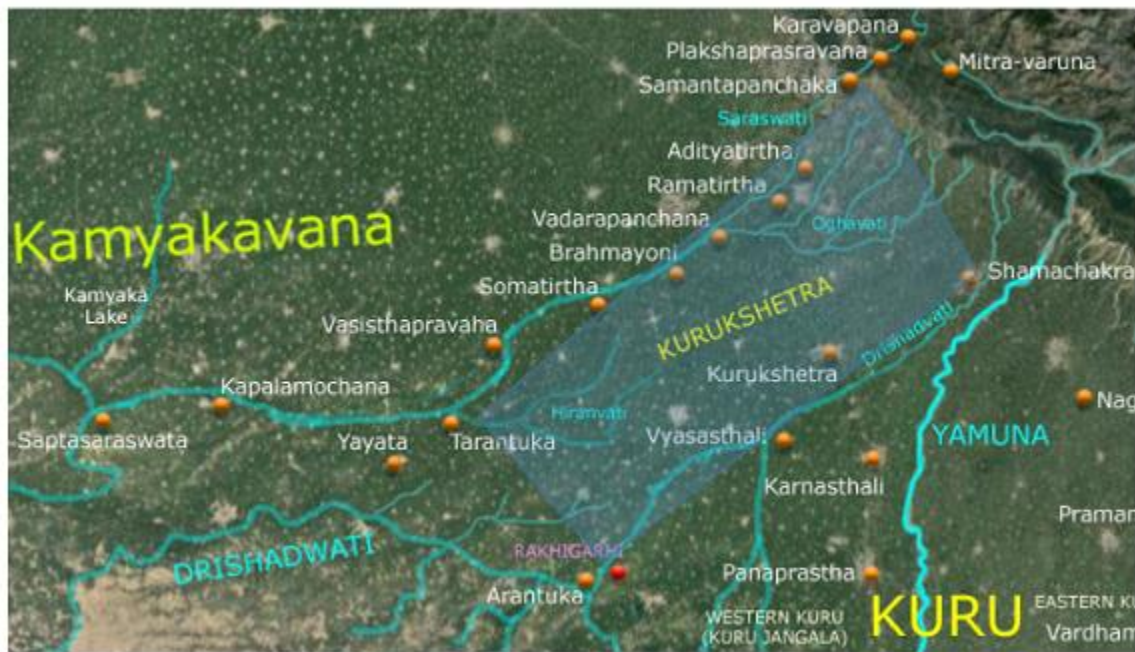
Prominent places mentioned as belonging to the Kuru territory are Indraprastha, Hastinapura, Pramanakoti, Varanavati, Parikshit-pura, Yamaprastha, Bhagaprastha, Swarnaprastha, Avishthala, Kusasthala, Vrikasthala, Makandi, Rohitaka, Panaprastha, Tilaprastha, Vyaghraprastha, Gurugrama, Vyasasthali, Pitrudaka, Ilaspada and Sapta-sarasvata.

Kurukshetra

Mahabharata defines Kurukshetra as the land between Sarasvati in the north and Dhrishadvati in the south. It is precisely defined as the land between the four corners viz. Tarantuka, Arantuka, the Lakes of Rama (Samanta-panchaka) and Shamachakra (mbh.9.51). This corresponds with the four-cornered Varena mentioned in the Avestan text Vendidad (vdd.1.17). Varena is mentioned as the fourteenth of the good territory, which Ahura Mazda (Asura-Medha) created. Varena is also mentioned in Avestan Yasht as being inhabited by the Daevas (mentioned twice) and as being four cornered (mentioned 4 times).

It was a sacred plain of the Kuru Territory used by the king Kuru as a field for cultivation. It was highly populated with holy-spots along the southern banks of Sarasvati. It witnessed many ancient battles. Some of these include the Devasura battles (Vedic versus Avestan conflicts, resulting in the migration of the Avestans to the west of Sarasvati and finally to the west of Sindhu), the Battle of Devas & others vs. Varuna, the Battle of Karthikeya vs Daitya Taraka, the Battle of Bhargava Rama vs. Bhishma,

the Battle of Chitrangada Santanu-putra and Chitrangada Gandharva and finally the Kurukshetra War.



Map 3: Kurukshetra the four-cornered strip of plain that lies between Sarasvati in the north and Drishadvati in the south and defined by Tarantuka, Arantuka, Shamachakra and the Lakes of Rama (Samanta-panchaka).

Geographical Extent of the Excavated Civilization

The excavated civilizational area spreads over 2.5 million square km from Sutkagan-dor in the Makran

coast of Baluchistan to Alamgirh-pur in the east in Uttar Pradesh and from Burzahonm in Kashmir to Daimabad in Maharashtra. The time period of Harappan culture is found to be starting from around 8000 BCE to 1300 BCE (Early & Matured Harappan).



Map 4: The geographical extent of the archaeological sites excavated. Red colored spots

are the excavated archaeological sites. Yellow colored spots are the places mentioned in the Balarama's journey along the Sarasvati River (mbh.9.33-52)

Taking Painted Gray Ware (PGW) as a continuity, it continued from 1300 BCE to 300 BCE (Painted Gray Ware, Northern Black Polished Ware – Iron Age, Indo-Gangetic traditions). A new Harappan like site is found in Tamil Nadu (Keeladi along Vaigai River, Sivaganga district). Its alliance with Harappan or SSC is still awaited.

Significance of Kuru Territory in SSC

Highest concentration of excavated sites is found in the Kuru region. Largest site Rakhigarhi is found in this region (4600 BCE to 2000 BCE with Over 350 hectares in size). One of the oldest site Bhiranna is also found in this region (7570 BCE to 6200 BCE). Hence based on the current understanding of archaeology, the Kuru-region is to be considered as the source of origin of this culture or at least one of the major sources of origin, which spread to all of the western India.

Balarama's Travel along Sarasvati leading to the Source of Yamuna

Balarama's pilgrimage tracing the Saraswati River from its confluence with Western Ocean to its source in the lower Himalayas is detailed in the Shalya Parva of Mahabharata in chapters 33 to 52.

Balarama follows the trail of Saraswati and finds its middle part lost in the desert, exactly where now lies the Thar Desert.

List of Places Visited by Balarama

1 Dwaraka	18 Vasishthapavaha
2 Prabhasa	19 Aruna
3 Chamasodbheda	20 Soma
4 Udapana	21 Taijasa
5 Vinasana	22 Agnitirtha
6 Subhumika	23 Brahmayoni

7	Gandarva Tirtha	24	Kauvera
8	Gargasrota	25	Vadarapachana
9	Sankha	26	Sakta
10	Dwaita	27	Indra-tirtha
11	Nagadhanwana	28	Rama
12	Sapta-Saraswat	29	Yamuna
13	Usanas	30	Aditya
14	Asylum of Rushangu	31	Sarasvata
15	Lokaloka Mt.	32	Samantapanchaka
16	Asylum of Vaka	33	Plakshaprasravana
17	Yayata	34	Karavapana
		35	Mitra-Varuna (at Yamuna)

Table 1: The places mentioned in the Balarama's journey along the Saraswati River (mbh.9.33-52)



Image 1: An illustration of Balarama's journey along the Saraswati River with the approximate path shown as a yellow curve. Shorelines of Gujarat area are approximations based on bathymetric studies. The Saraswati drainage system indicated are approximations based on previous studies.

In subsequent sections we shall explore each place in detail, giving vital clues about the course of the river, the different turns it makes and the different terrains through which it passes through, like

deserts, wetlands, forests, lakes and highly populated areas.

Dwaraka

Balarama starts the journey under the constellation of Pushya (mbh.9.33). The items carried for the travel mentions horses, elephants, mules and camels. The presence of camels in this list indicates travel through deserts and arid lands. Elephants indicates travel through forests and green lands. A partially dried up Sarasvati is thus indicated in the very beginning of the journey itself.



Image 2: Excavated sites in Gujarat Region with the probable location of Dwaraka, Prabhasa and Chamasodbheda

Prabhasa

The narration of the journey through Prabhasa, touches upon topics like the cure for the disease of phthisis incurred by Soma. This symbolically indicates the decline of the Soma-cult and Soma-plant cultivation in the Sarasvati river valley.

Wasting of Soma due to disease is indicated by mentioning that the creepers & herbs too failed to grow, juices dried up and it became tasteless. (mbh.9.33). Living creatures began to decay. Soma rejuvenated in the Western Ocean coast where Sarasvati merges with ocean. This implies that the Soma-cult and Soma-plant cultivation from the dried up regions of Sarasvati got re-established in the Prabhasa region where Sarasvati merged with the Western Ocean viz. in the Somnath, Dwaraka & Rann of Kutch of Gujarat (India) and the southern Sindh (Pakistan).

In the Mahabharata, Prabhasa is mentioned as a plain: – ‘the plains of Prabhasa’ (mbh 3.12) as a

region – ‘the western Prabhasa’ (Mbh 13.94) and as ‘the sacred landing-place’ on the coast of the sea (Mbh 3.119). This shows that during the time of Balarama, the name Prabhasa (also known as Prabhasa-kshetra) applied to the whole of Gujarat and Sindh sea-shore unlike today where it is identified with a place (Prabhas-patan) in the southern coast of Gujarat. The mention of Prabhasa as ‘the sacred landing place’ could indicate that it is the region where Saraswati drained in to the sea or the place where the people migrating from the ancient flooded sea-coasts had landed and got established temporarily.

Chamasodbheda

Balarama passed one night here. Chamasodbheda is mentioned along with Prabhasa as a holy spot on the sea-coast in Saurashtra region at mbh.3.88. It is also mentioned (indirectly, i.e. mentioned after Prabhasa) as the spot where the Saraswati mingles with the sea at mbh 3.82. This implies that Chamasodbheda was the exact spot in the Prabhasa Kshetra, where the Saraswati River with its over-ground and underground waters ‘broke off’ (udbheda) through the land and flowed into the sea.

Udapana

Here Saraswati is lost, but recognizable from the coolness of the herbs and land— (mbh.9.33).

Saraswati here has an invisible current underground (mbh.9.33). Balarama bathed here, touched the waters here (mbh 9.34). This could be some small Saras (lake) formed due to the underground flow of Saraswati. Ascetics like Trita drank the Soma juice here (mbh 9.34). Gautama's sons Ekata, Dwita and Trita, who were Vedic scholars, lived here. Their occupation includes performing Vedic sacrifices to earn wealth (mbh 9.34). Animals were used in the sacrifices (mbh 9.34). Woodland contained wolf (and also probably leopard, bears and apes) (mbh 9.34). Deep pits & holes with creepers found on the banks of Sarasvati, probably created due to the underground flow of the river (mbh 9.34).

All this indicates that Soma cult & cultivation, Vedic culture and Vedic sacrifices existed here. Officiators (priests) of Vedic sacrifices earned much wealth. In the absence of Soma plant, it was substituted with creepers. In the absence of Sarasvati, the presence of the river was imagined.

Vinasana

Sarasvati completely is invisible and lost here (mbh 9.35). This region was inhabited by Sudras and Abhiras (mbh.9.35), in contrast to the mention of the presence of the Brahmanas at the previous spot Udapana and the next spot Subhumika. Balarama bathed here indicating the presence of some small Saras. This place is located at Derawar Fort (Ref. History and Historians in Ancient India, By Dilip Kumar Ganguly).

Subhumika

In contrast to Vinashana, Subhumika is mentioned as a wet-land on the banks of Sarasvati (mbh.9.35) probably due to lakes in the partially dried up course of Saraswati, inhabited by fair complexioned diverse tribes of Apsaras, singing songs and musical instruments. The word Apsara etymologically means ‘those living close to a Saras (lake) or a waterbody (Apa). Tribes of Deva-Gandharvas and Rakshasas found here indicating a multi-ethnic population. Flora consists of flowering plants & creepers.

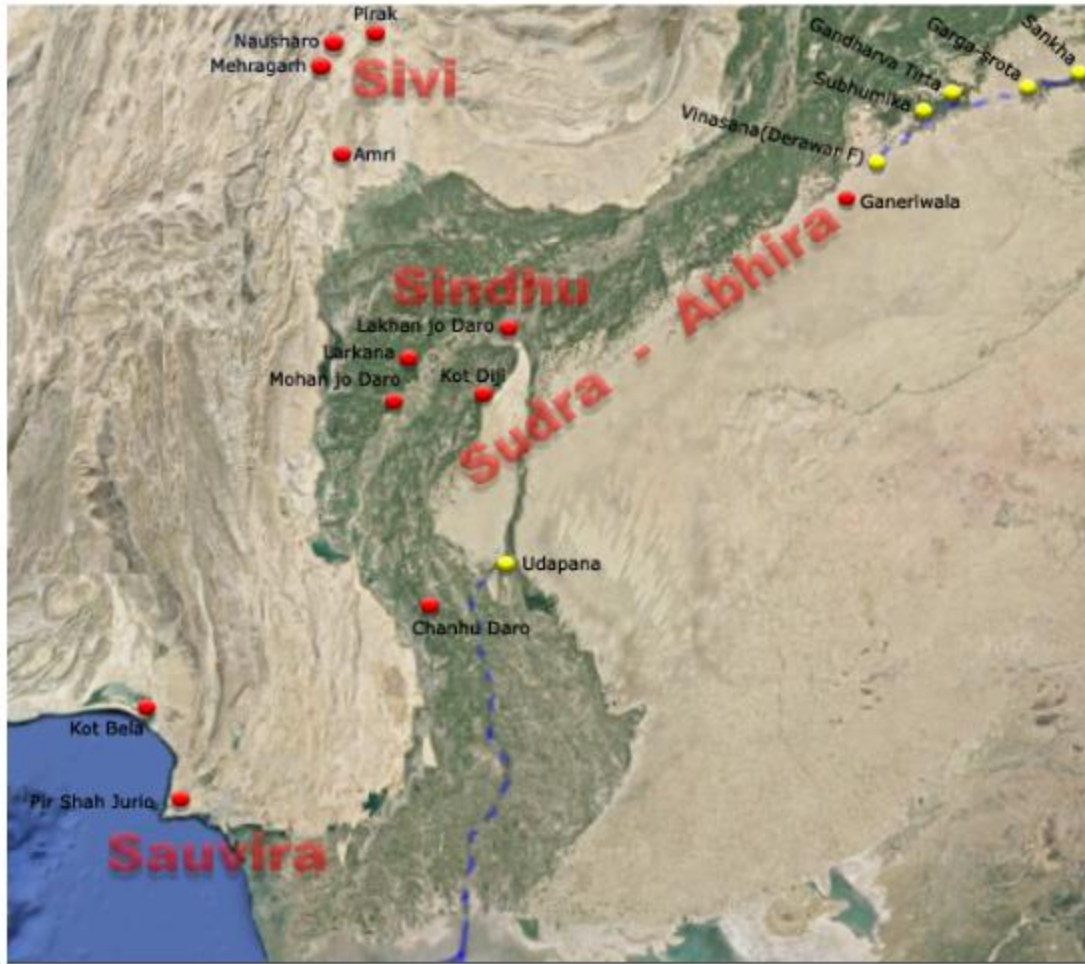


Image 3: Probable location of Udapana, Vinashana, Subhumika, Gandharva Tirtha, Gargasrota and Sankha.

Gandharva Tirtha

Gandharva tribe headed by Vishavasus is found here (mbh 9.35). Balarama gives gifts, including camel, sheep & mule to Brahmanas here, indicating that the spot lied between the desert in the south (Thar Desert) and the wetlands in the north (Dwaita,

Kamyaka forests of Punjab). Anyone traveling from the northern regions to the south will require those camels, sheep and mule.

Gargasrota

Many ascetics & Brahmanas, including astronomer Garga who studied deviations of celestial objects and acquired knowledge of time, lived here (mbh.9.35)

Sankha

A big tree called Mohasankha is mentioned as present here, indicating that it was a grassland and dense forests like Dwaita was still far away in the north and east (mbh.9.35). Inhabitants of this region are described as Yakshas, Vidyadharas, Rakshasas, Pisachas and Siddhas (mbh 9.35)

Dwaita Lake

This is the famous lake in the Dwaita forest where the Pandavas lived many years of their life in their 12 yearlong exile. This region is mentioned as inhabited by Brahmanas and ascetics (mbh 9.35). From here onwards Balarama proceeded along the southern bank of Sarasvati (mbh 9.35). This

indicates that the northern bank of Sarawati at this spot was part of the dense Dwaita forest. The Dwaita Lake could be a prominent lake formed in the highly visible paleo-channel emerging from Satadru to Saraswati. Kamyaka Lake is locatable in a less prominent north-eastern paleo-channel, which could be a tributary of Saraswati or a channel from Satadru. Pandavas spent the rest of their 12 yearlong forest life at Kamyaka forest containing the Kamyaka Lake.



Image 4: Dwaita Lake, Nagadhanwana,
Saptasaraswata, Kapalamochana, Yayata
Nagadhanwana

This place is mentioned as inhabited by Nagas with Vasuki as their king installed by the Devas (mbh.9.35). This is a data-point towards my inference that the ethnicity of the population of the Saraswati-Yamuna region constituted Nagas, Purus and Yadus. This place is also mentioned as the permanent abode of many Rishis and Brahmanas (mbh.9.35). From here onwards Balarama is moving eastwards containing numerous Tirthas with permanent residence of many ascetics.

The subsequent spots mentioned in Balarama's pilgrimage falls in the greater Kurukshetra region lying between Drishadwati and Saraswati. These spots falls in the densely populated southern banks of Saraswati.

The densely populated southern banks of Saraswati

The Tirthas on the southern banks of Sarasvati looked like towns and cities due to the settlement of ascetics migrated from Naimisha (mbh 9.35). These settlements extended up to Samantapanchaka. The

region was active with Vedic sacrificial fires and Vedic recitations. Valhilyas, Asmakuttas, Dantolakhhalinas, Samprakshanas and other ascetics living on air, water and dry leaves lived here. Due to high population, the Rishis failed to find space to live here (mbh 9.35). Ascetics used threads to measure small plots here. They performed Agnihotras and other diverse rites. The archaeological excavations here reveal settlements corroborating with this as they contained inhabitable plot layouts with precise measurements.

Spots where Saraswati turns eastward and then westward

It is poetically mentioned here that, as if to accommodate large population, the course of Sarasvati turned eastward and then returned to its westward flow (mbh.9.35). This indicate a notch in the course of Sarawati and it is named Sapta-sarasvata in the narration. This twisted river-course is locatable from the narration near to the south-west corner of the Kurukshetra region.

Sapta-sarasvata and Migrations from Sarasvati

The flora in this region consisted of Vadar, Inguda, Ksamarya, Plaksha, Aswattha, Vibhitaka, Kakkola, Palasa, Karira, Pilu and other trees; Forests of Karushakas, Vilwas, Amratakas, Atimuktas, Kashandas and Parijatas. There were forests of plantains. There were many feathery creatures found here (mbh 9.35).

Many ascetics & Brahmanas, including astronomer Garga who studied deviations of celestial objects and acquired knowledge of time, lived here (mbh.9.35). Some Ascetics ate raw grains husked using stones, others ate fruits. Ascetic tribe named Vaneyas, chanted Vedas.

The Seven Sarasvati streams are mentioned as Suprava, Kanchanakshi, Visala, Manorama, Oghavati, Surenu and Vimalodaka (mbh 9.36). Of this only Oghavati is identified as flowing in the Kurukshetra region. Other streams are used symbolically to indicate many migrations from Saraswati to other regions like to: –

1. Pushkara (Sarasvati as Suprava) – Pushkar, Rajasthan

2. Naimisha (as Kanchanakshi) – Naimisharan, Uttarpradesh along the Gomati River
3. Gaya (as Visala) – Gaya in Bihar
4. Northern Kosala (as Manorama) where reached the sages headed by Auddalaka clad in barks and deer-skins) – Mithila in Nepal, north of Bihar
5. Kurukshetra (as Oghavati) where king Kuru with priest Vasistha engaged in sacrifice
6. Gangotri (as Surenu) where Daksha engaged in sacrifice
7. Himavat mountain (as Vimalodaka or as all streams together)

Sapta-Sarasvat is assumed as having all these 7 Tirthas together (mbh. 9.36). Here Sarasvati is mentioned as a river of swift current flowing from the sides of Himavat (mbh.9.36).

The Sapta-Sarasvat could indicate 7 minor tributaries or old channels of Sarasvati present here with the prominent channel being Oghavati (flowing through Kurukshetra). The Sapta-Sarasvat could also be a synonym of (or a name inspired by) Sapta-

Sindhu (Sindhu, Vitasta, Chandrabhaga, Iravati, Satadru, Sarasvati).

Sapta-Sarasvat is mentioned as the abode of sage Mankanaka (mother Sukanya, father Marut) and the origin of 7 Rishis (Sapta-maruts) and from them 49 Maruts (mbh.9.36). Mention of vegetable juice (Soma?) and ashes white as snow (of burnt Soma plant?) is found here (mbh.9.36).



Image 5: The four cornered Kurukshetra and the holy-spots along the banks of Saraswati flowing to the north of Kurukshetra.

Usanas (Kapalamochana)

This place is mentioned as the abode of Usanas (sage Sukra) who had done penance for Daityas and Danavas. This indicate that this was a territory shared by Adityas, Daityas and Danavas who engaged in mutual conflicts here. Here there is a mentions about a skull (probably skulls of people from older settlements?). (mbh.9.37).

Asylum of Rushangu, Lokaloka Mountain and the Asylum of Vaka

This place is located in the northern banks of Saraswati. Arshtishena had done penance here (mbh 9.37). Arshtishena, Sindhudwipa, Devapi and Vishwamitra changed from Kshatriya to Brahmana here. Dalvya Vaka, who lived here had an encounter with Dhritarashtra and made his kingdom waste, loss of prosperity and life (mbh.9.39). As a result of this, large forest began to disappear when men proceeded to cut it down with axe (mbh 9.39). Finally the kingdom reclaimed its prosperity (mbh 9.39). Brihaspati had done penance for Devas against Daityas here. This indicates that this was a territory shared by Adityas, Daityas and Danavas, who engaged in mutual conflicts here.

Yayata

Yayati, the son of Nahusha had done penance here (mbh 9.39). The production of milk and clarified butter is mentioned here (mbh 9.39). These are the occupations of the Yadavas. Names like Yayata here affirms that this was indeed the place where Yayati and other Aila ancestors of the Kurus lived.

Vasishthappravaha

Here the swift current of Sarasvati is mentioned as it flows making a turn and washes away one of its bank due to the swift current (mbh 9.40). River is mentioned as turning red (probably due to the mud generated from the erosion of the banks due to swift currents), flowing thus for a whole year (mbh.9.40).

Vasishta lived on the eastern bank at Sthanu.

Vishvamitra lived on the opposite bank. This place was a witness to the competition between Vasistha and Vishwamitra recorded in the Vedas and the Mahabharata.

Here the Devas installed Skanda as their Commander in Chief, indicating this as the battlefield of the Adityas, Daityas and the Danavas.

Sarasvati is here mentioned as originating from Manasa Lake, as per Visvamitra (mbh 9.40), which in retrospect should not be mistaken as Lake Manasa in Kailasa.

Presence of Rakshasas is attested here, and they found frequent mentions in the conflicts of Vasistha and Viswamitra.

Tirthas of Aruna, Soma, Taijasa and Agni

Aruna Tirtha (red holy-spot) is mentioned as a newly formed bank of Sarasvati (indicating that this spot is same as or not far from, Vasisthapravaha) (mbh 9.41). Formerly the presence of the river here was concealed, but then it suddenly got flooded (mbh 9.41).

Soma Tirtha is a place where a battle of Devas versus Daitya, Danavas and Rakshasas took place (9.41). Battle of Skanda versus Taraka also took place here (mbh 9.41). There was a gigantic Aswattha tree here where Skanda resided.

Taijasa Tirtha is the place where Varuna was installed as the king of waters by Devas- (mbh 9.44). Balarama stayed here for one night.

In Agni-tirtha, Fire concealed inside Sami wood is mentioned mbh.9.45. This was also the abode of Brihaspati and Bhrigu.

All this indicate that these places locatable on the banks of Saraswati to the north of Kurukshetra were places of co-habitation and conflicts of Aditya-Daitya-Danavas and other tribes like Rakshasas and Yakshas.

Brahma-yoni

This spot is mentioned as the seat of creation by Brahma (9.45). This is significant for the Avestan as well, because in Avestan, Brahma is represented as Spitama. Mahabharata describes the whole of Kurukshetra as Brahmavarta and considers it as the northern sacrificial altar of Brahma and of the Devas. Another name for Kuruskhetra is Ilaspada.

Kauvera

Ailavila (Kuvera, king of Yakshas) had done penance here. The name Ailavila indicates that he lived in the territory of Ila, viz. Ilaspada, i.e. Kurukshetra. The woods of Kuvera is mentioned here (mbh.9.45). Maruts installed him as the king.

Kuvera obtained a son named Nalakuvera and a flying Vimana here.

Vadara-pachana

This was a place abundant with fruits (jujube) and flowers (mbh.9.45). Sruvavati, daughter of Bharadwaja, who lived here as a Brahmacharin, became spouse of Indra – mbh 9.46. Here, there is a mention about a 12 year long drought connected to Saptarshis and Arundhati (constellation shift due to precession?) (mbh.9.46)

Tirthas of Indra, Rama, Varuna (Yamuna) and Aditya

Indra had done 100 Ashvamedhas at Indra-Tirtha.

Parasurama did hundred Ashvamedhas and Vajapeya at Rama-tirtha with Kasyapa as the priest. Balarama gave kine, elephants, sheep and goat here (mbh.9.47).

At Varuna Tirtha (also called Yamuna-Tirtha), Varuna had done Rajasuya. Here there is an indication that a channel of Yamuna may be entering Saraswati at this spot. But this is not provable as data is too sparse to make any conclusion regarding

this. Varuna battled against Manavas, Devas, Gandharvas and Rakshasas here. A Battle between Devas (Adityas) and Danavas occurred here (mbh.9.47).

At Aditya-tirtha, Aditya performed penances. Vyasa, Suka and Asita-Devala are mentioned here. Adityas like Indra and Vishnu, Viswadevas, Maruts, Gandharvas, Apsaras, Yakshas, Rakshasas and Pisachas are mentioned here. Vyasa and Devala attained Yoga powers doing Yoga here (mbh.9.47).

Asylum of sage Sarasvata

Sage Saraswata taught the lost Vedas during the 12 year drought here (mbh 9.49). Dadhica and Apasara Alambusa are mentioned here. Their son was Sarasvata. Dadhica gave his bones to Indra to make Vajra here. In a spot close to this place, Kuni-Garga's daughter and Galava's son Sringavat lived together for one night (mbh 9.50). Balarama hears about the death of Shalya here.

Samanta-panchaka

It is mentioned as the eternal northern sacrificial altar of Brahman (mbh 9.51). King Kuru had

cultivated and tilled the soil of the field for many years and hence is called Kurukshetra (mbh 9.51). Kuru was helped by Indra here to prepare the land. King Nriga had performed penance here. Here it is mentioned that the space between Tarantkuka, Arantuka and the lakes of Rama (Samantapanchaka) and Shamachakra is Kurukshetra

Plaksha-prasravana

Balarama continues his journey eager to see the source of Saraswati and proceeds beyond the boundaries of Kurukshetra at Samantapanchaka and reached Plaksha-prasravana by slightly ascending the Shivalik (lower Himalayan) hills. Here the flora is described as consisting of Madhuka, Mango trees, Plaksha, Nyagrodhas, Vilvas, Jack tree, Arjuna trees (mbh 9.52). Vishnu performed penances here. A Brahmin maiden Sandilya is mentioned as living here. To arrive at this hermitage Balarama reached the foot-hills of Himalayas and ascended the mountain (mbh 9.52). The narration gives this spot as the source of Sarasvati emerging from the Shivaliks, and close to the sources of Yamuna.

Karavapana

Proceeding a little further he reached Karavapana. Balarama stayed here for one night (mbh 9.52). This is the last spot mentioned as on the banks of Saraswati in Balarama's journey, since Balarama's final destination, viz. the Asylum of Mitra-Varuna was on the banks of Yamuna. This is probably the spot where Saraswati becomes a recognizable stream by collecting many rain-fed streamlets in the Shivaliks. The narration gives this spot as located a little higher in the Shivaliks than the Plaksha-prasravana, which is probably located at the foothills of the Shivaliks where the hills merge with the plains.

Asylum of Mitra-Varuna at Yamuna

This spot is mentioned as located on the banks of Yamuna (mbh 9.52). This make it clear that the source of Saravati was not far away from Yamuna. Indra, Agni and Aryaman is mentioned here. Here Balarama hears more about the status of Kurukshetra war from Narada and returns to Samanta-Panchaka. He descended to Plaksha-prasravana and from there back to Samanta-panchaka and joined Krishna and Pandavas there.

Sarasvati: Rain fed river or Snow fed river?

As per the studies based on the hydrology research of Peter D Cliff, Yamuna did drain into Sarasvati, but only before 10,000 BCE. Balarama's journey corroborate this as it contains no mention of Yamuna 'joining' Sarasvati. The only exception is a mention of Varuna-Tirtha, which is also described as Yamuna-Tirtha on the banks of Saraswati close to Plaksha-prasravana where Saraswati enters the plains having originated from the streams of lower Himalayas. This could be one of the spots where an ancient paleo channel of Yamuna merged with Sarasvati and this spot on Sarasvati could have been named after Yamuna, in memory of that.

The paleo channel of Satadru (Sutlej) is still visible in satellite imagery, but water flow in this channel was lost by 2300 BCE. Balarama's journey makes no mention of Satadru joining Saraswati, but describes about Dwaita Lake – indicative of the lakes formed in the defunct channel. Forests of

Dwaita and Kamyaka is described as existing in this region indicating wetness of terrain

Sarasvati was thus a perennial monsoon rain fed river and not a snow fed river – i.e. it was a mild, stable river in contrast to snow fed Sindhu which flooded frequently causing trouble to the settlements on its banks. Thus, Saraswati was good for agriculture and stable settlements. This fits well with my research on the pilgrimage of Balarama along Sarasvati. Balarama's pilgrimage narration has highest data density on any narration about Saraswati in the Vedas, Itihasas and Puranas. Balarama's trail of Sarawati ends at Yamuna. There is no explicit mention of Yamuna merging with Saraswati in this narrative containing many chapters of Mahabharata in the Shalya Parva (Book 9).

A snow fed Saraswati would have extended further beyond Yamuna, for example to Lake Manasa, usually identified with Manasarovar in Tibet, based on the less detailed narrations in the Itihasa-Puranas (which obviously is not correct).

The Balarama's pilgrimage narration indicates that the southern banks of Saraswati in Kurukshetra

region was highly inhabited. This fits well with the density of archeological settlements in the Saraswati-Drishadvati rivers basin, i.e. the extended Kurukshera region.

IE Dispersal from Yamuna-Saraswati Region

Shrikant G Talageri in his three books 1. AIT: A Reappraisal, 2. Rigveda: A Historical Analysis, 3. Rigveda and Avesta: The Final Evidence – details out how the five tribes mentioned in the Vedas viz. Yadu, Turvasa, Drahyu, Anu and Puru were ancestral to various Indo-European tribes, who originated in India and then spread from there to the rest of India, Central Asia and Europe, speaking various Indo-European Languages.

He places the origin of Indo-European language precisely in the **Ganga-Yamuna-Saraswati region**, viz. the Kuru territory, i.e. Eastern Uttar Pradesh and Haryana). He equates the Purus, who stayed back in the ancestral territory as the Vedic people viz. the Indo-Aryans. The Yadus were gradually pushed to the south. They spread to the Western shores of India including Dwaraka. Some Turvasas followed

the Yadus and others migrated westward. Anus migrated to the west of Sarawati and Sindhu and finally settled in Iran as Indo-Iranians. The Drahyus migrated further away and are the ancestors of the Indo-Europeans.

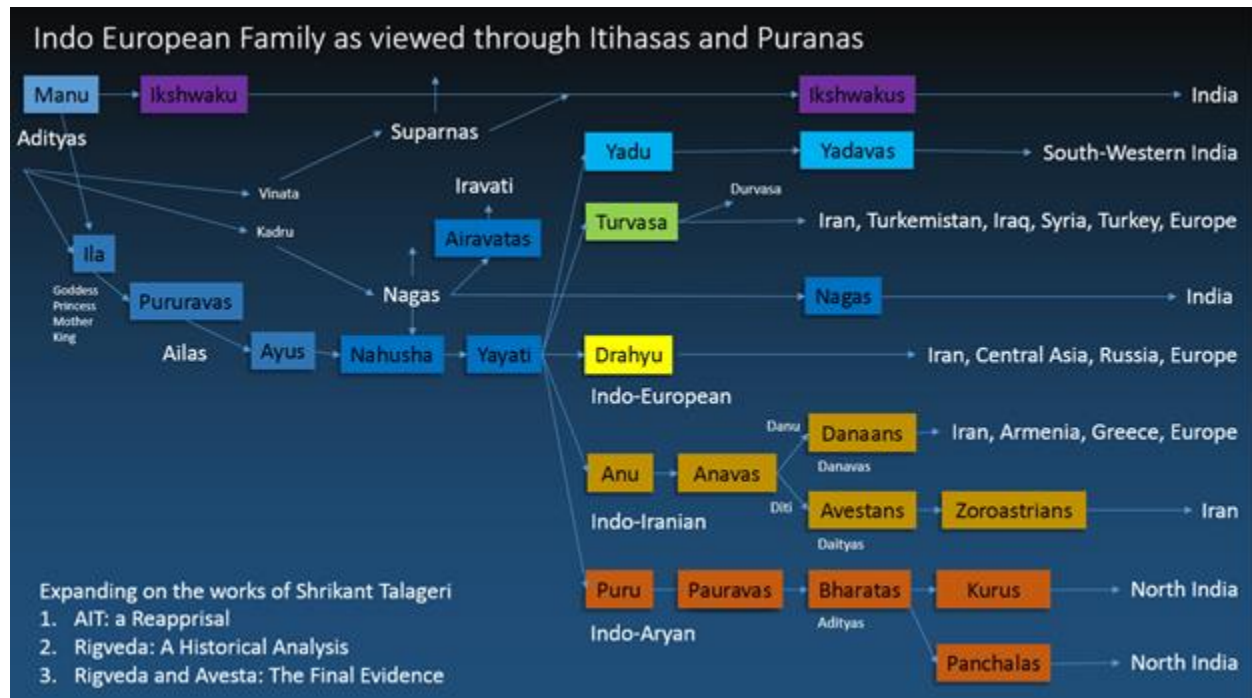


Figure 1: The IE Family as viewed through Itihasas and Puranas

Expanding this framework, my analysis concludes the following: – The Turvasas who migrated along with the Yadus to the South were the Bhoja Yadavas. The Anus (Anavas) diversified in their westward migration as Daityas and Danavas. The Daityas stayed back in the west of Saraswati and

Sindhu and in finally Iran. They gave rise to the Avestan literature and later became the Zoroastrians. The Danavas later migrated from Iran to Armenia and Greece to become the Danaan tribe mentioned in the Iliad and Odyssey and finally reached Ireland as Irishmen. The strong linguistic relationship between the Iranian, the Armenian and the Greek mentioned in Talageri's work can be explained this way.

Within the Kuru territory itself, the western part, viz. the region between Yamuna and Saraswati (later known as Kurukshetra and Kurujangala) was the most happening place during the period of the Adityas and in the Vedic period, when the Vedas were composed. Ganga as a river was discovered later, starting with a king named Hasti establishing Hastinapura on the banks of Ganga and then Santanu marrying from the banks of Ganga giving rise to a powerful son Bhishma (Ganga-putra).

The Purus, viz. the descendants of the Adityas, who inherited the Aditya territories and became worshipers of their Aditya ancestral heroes hailed in the Vedas (viz. Indra and others) became identified with the Adityas in the Puranic Aditya-Daitya-Danava triad. Their ancient capital must have lied in

the Kurujangala / Kurukshetra region between Yamuna and Sarasvati. Some candidates locations are Bhirrana (7570 BCE), Rakhigarhi (4600 BCE) and also the location of Indraprastha itself, much before the Pandavas built their city there.

Identification of Avestans (later Zoroastrians) as Daityas

Daityo / Daitya is mentioned 20 times in Vendidad, 9 times in Yast and 2 times in Yazatas. The major river of Airyana Vaeja, one of the 16 lands of the Ahuras and the original homeland of the Avestan people (Ahuras: Asuras) is Daitya River (vdd.1.2).

Airyana Vaeja is identifiable with the cold regions viz. the Airavata region: Kashmir & North West Frontiers of Pakistan lying to the north of Iravati (Ravi) river. Samskrit texts describe this region is inhabited by the Airavata Nagas, Daityas and Danavas. Daitya River is identifiable with Vitasta or Sindhu in Kashmir. Other places mentioned in the list of the sixteen lands of Asuras, like the Sughdha is identifiable with Sumandala, the fertile plains north of Kurukshetra or with Subhumika on the banks of Saraswati and Mouru is identifiable with

Maru, the desert to the south of Kuru territories and with Vinasana on the banks of Saraswati. The four cornered Varena is easily identifiable with the four cornered Kurukshetra. Similarly Harahvaiti is identifiable with Saraswati and Hapta Hendu identifiable with Sapta Sindhu (Punjab). Thus the Avestans (Daityas) shared common territory with the Vedics (Adityas).

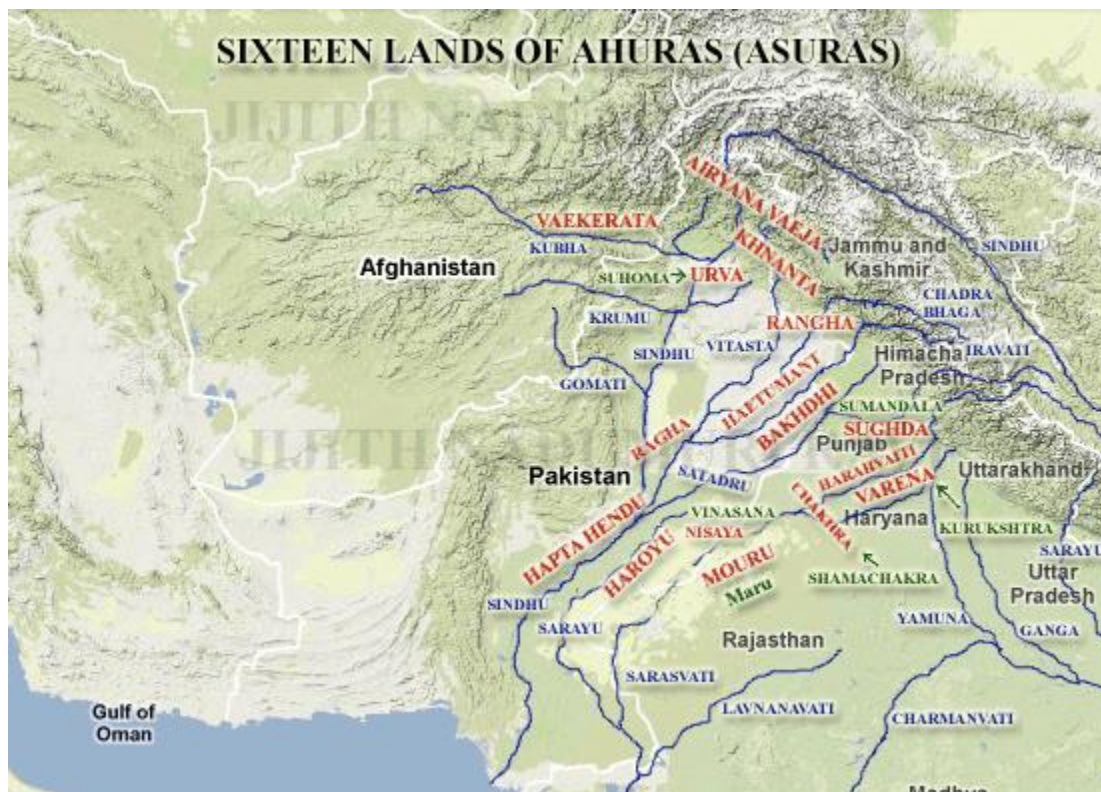


Figure 2: The sixteen lands of the Ahuras (Asuras)

In the Avestan texts, Indra worshipers or Daevas (Devas) are mentioned as the primary enemy, along with the Druj (Drahyus). Vedic pantheon of gods

and goddesses is partially shared – Yima: (Yama), Vivanghat (Vivasvat), Mithra, Airyaman (Aryaman) etc. Avestan book Vendidad is an abbreviation of Videvdaat: Vi-daevo-data which means a (liturgical) book against the Devas. The position of Manu in the Vedas is replaced by Yima (Vedic Yama) in the Avestan. Hence, when the Samskrit texts talk about Manu's flood, Avestan texts talk about Yima's Flood.

Ahura Mazda (av.) i.e. Asura-Medha (Skt.), viz. the leader of the Asuras or the Intellect of the Asuras is identifiable as Hiranya Kashipu. Samskrit texts describe Hiranyakashipu as an Asura ruler, who considered himself as God himself and murdered the worshippers of the Vedic gods like Vishnu and Indra. The Avestan texts like Vendidad describe Ahura Mazda as the God and this God Ahura Mazda is mentioned as murdering the worshippers of Daevas (Devas), enabling us to make this conclusion.

Identification of Danaans (Greek Heroes of Iliad) and Irishmen as Danavas

Danaan is mentioned 114 times in Iliad, and 10 times in Odyssey. The Greek heroes, who sacked Troy (like Achilles, Patroclus, Antilochus, Agamemnon, Ajax) are described as belonging to the Danaan tribe. The river names Don and Danube in Europe are derived from matronymic Danu.

The goddess Danu is hailed as the mother of the Danavas by ancient Irishmen as well as by Sanskrit texts. Irish mother goddess is named Danu. The term Tuath(a) Dé Danann meaning people(s)/tribe(s) of the goddess Danu is prevalent among the ancient Irishmen. Sages in the lineage of the Bhrigus are described as the priests allied with the Danavas in Itihasa-Puranas. An example is sage Usanas, also known as Shukra. Bhrigi, the wife of Bhrigu is mentioned in the Sanskrit texts whose characters resemble the goddess Brig (Brigid, Brigit), who was an Irish goddess belonging to the Tuath (a) Dé Danann. The Bhrigus were the priestly class of the Danavas as per Sanskrit text, while the Phrygians were the priestly class for the Irishmen.

The Adityas, the most ancestral tribe mentioned in Kurukshetra Region

The most ancestral tribe mentioned in the region between Yamuna and Saraswati is the Adityas. The twelve Adityas are hailed as the Vedic gods viz. Dhata, Aryaman, Mitra, Varuna, Indra, Vivasvat, Tvashta, Vishnu, Amshuman, Bhaga, Pusha and Parjanya. We have already seen that the Kurukshetra region is mentioned as their abode. Holy-spots were dedicated to Aryaman, Mitra, Varuna, Indra and Vivasvat. Cities and towns were named after Indra (Indraprastha) and Bhaga (Bhagaprastha). Several battles of Indra against the Daityas and Danavas as well as that of Varuna against others and Kartikeya against Taraka are mentioned as occurring in the Kurukshetra region. Hence, this region can be identified with the place where the Adityas and the Daityas-Danavas coexisted for a long time, from where the Daityas -Danavas migrated westwards and the Adityas stayed back.

Kurukshetra region is also hailed as the Devabhumi (the territory of the Devas), the northern sacrificial altar of the Devas and the sacred sacrificial altar of the Grandsire (Brahma).

Both Manu and Yama (Yima in Avestan) were the sons of Vivasvat and hence Adityas. Sanskrit texts

describe Manu as the patriarch-king, who faced the Great Flood while in the Avestan texts, Yima (Yama) is portrayed as the king who faced the Great Flood. There was a city named after Yama on the banks of Yamuna in Kurujangala called Yamaprashta.

Manu and his daughter Ila is mentioned as living in this same Kurukshetra region which was also known as Ilaspada named after Manu's daughter Ila.

Ila, the Goddess & the mother of the Ailas

The royal dynasty of Ailas, originated from Ila is the one of the most ancestral tribe mentioned in Kurukshetra along Sarasvati apart from the ancestral Aditya tribe (pre-Aila tribe). Ila is mentioned as one among the triple goddesses in Rigveda: – Ila, Sarasvati, Mahi mentioned as the three goddesses (rvs.1.13.9). Sarasvati, Bharati and Ila mentioned as the three goddesses (rvs.1.188.8, rvs.2.3.8). Ila as a teacher of men (rvs.1.31) and as the mother of the herds of cattle (rvs.5.41.19) too are mentioned.

Ila's place is mentioned in Rigveda and it is described as another name of Kurukshetra in Mahabharata. Mahabharata uses the name Ilaspada (mbh.3.83) to denote Ila's place. Ila's place is mentioned as Earth's loveliest place amidst Apaya (Apaga), Drishadvati & Sarasvati (rvs.3.23.4). Ila's son and Ila's place are together mentioned (rvs.3.29.3 & 4) in Rigveda. Mahabharata clarifies that Ila's son is Pururavas. Ila as the daughter of Manu and the mother of Pururavas is mentioned in Mahabharata (mbh.1.75). Ila's consort is described as Budha (mbh.13.147). This pair is akin to the Aphrodite-Hermes pair in the Greek mythology.

Ila is also mentioned in Mahabharata as a holy-water (lake or river) in Kurukshetra near Sarasvati (mbh.3.155).

We also have some conflicting information, which is but, not as strong as the above understanding. King Ila, the son of Kardama is mentioned in Ramayana as ruling Bahlika (vrn.7.100) in Valmiki Ramayana. Ilavrita is mentioned as a big region surrounding Meru in Vishnu Purana indicating that it is the central region of importance (vp.2.1, 2.2). A clue is available in the title Ailavila given to Yaksha king

Kuvera, who ruled the territory surrounding Kalisa in Tibet. Kuvera is also mentioned as living in Kurukshetra region. This could indicate a migration of Ailas or people in the Ilaspada region to other places like Bahlika, Kailasa and beyond, giving rise to regional names like Ilavrita.

Pururavas, Ayus and Nahusha

Pururavas is mentioned as the son of Ila and lover of Urvasi in Rigveda. Rig Vedic hymn 10.95 is dedicated to the relationship of Pururavas and Urvasi.

Ayus or Ayu is mentioned as a god and giver of life (rvs.10.17) and as a king (rvs.8.96) in Rigveda. Ayu is mentioned in 9 times in Rigveda. Ayu is mentioned as a god and king in Atharva Veda many times and also once in Sama Veda. In Krishna Yajurveda, Pururavas, Urvasi and their son Ayu is mentioned together – (yvk.1.3). Ayu and mother Urvasi too are mentioned together (yvk.6.3). He is mentioned like a god at yvk.4.6.

Nahusha and his tribe is mentioned in the Samaveda (svs.1.2.2, 1.3.2). Nahusha's tribe is mentioned along with the tribes of Aryas and Dasas in Atharva

Veda (avs.20.36.9). Nahusha is mentioned as a Naga in Mahabharata.

Analysis of Yamuna-Saraswati Ethnicity: – Nagas, Purus & Yadus

There existed a multi-layered relationship between the Nagas, Purus and Yadus, who inhabited the banks of Yamuna and Saraswati. There were kinship, alliances and conflicts between them.

Naga relationship with Purus and Yadus

Nahusha as the Naga ancestor of the Yadus and Purus, the maternal grandfather of Bhima who was a Naga, Arjuna's Naga wife Ulupi, Naga mother of sage Astika and the mention of Yadava Balarama described as a Naga – all of this indicate mutual kinship and shared ancestry.

Nagas allied with Purus (Daeva worshippers) against the Anavas (Daitya-Danavas) in a battle mentioned in the Avestan text Vendidad. The Naga leader was Azi Dahaka (Ahi Dasaka Naga). This battle took place at Varene (Kurukshetra). Takshaka allied with

Indra against Arjuna. The Naga tribe were themselves having sibling rivalry described in the Kadru-Vinata narrative.

The battle of Arjuna with Naga Takshaka at Khandava, the murder of Kuru king Parikshit by Naga Takshaka, the murder of many Nagas by Kuru king Janamejaya, the Naga conflicts with the Yadavas on the banks of Yamuna – all of this indicate mutual conflicts.

Hastinapura, the Kuru city named after elephant was also known as Nagapura. The capital of northern Panchala, Ahichatra, literally means the city of the Ahi Nagas. The Khandavaprastha, that existed before Indraprastha on the western banks of Yamuna and the forests along the banks of Yamuna were the territories of the Nagas, who coexisted there with the Purus and the Yadavas.

Symbolism of Nagas, Yadus and Purus in SSC

Kundalini symbolized as coiled serpent and Yogic postures are found in the excavated sites as a symbol of the Nagas.

The trade-record inscriptions in Indus script, various trade artefacts and the identification seals like those in Dwaraka given to citizens as a symbol of citizenship (like passport) mentioned in Mahabharata is a representation of the Yadu symbolism. Yadavas, especially those in Dwaraka and the western coast were mentioned as great traders in Mahabharata.

Bulls are found as a dominant symbol in the excavated sites. Puru heroes were compared to bulls in Mahabharata e.g. Bharatarshabha – Bharatarshabha. Similarly the elephants, important for the Kurus as a symbol of power (capital city Hastinapura, was named after elephants) too are found as a symbol in the excavated sites.

The Markandeya Yuga System to reconcile with SSC & Itihasas

Markandeya was a sage who lived on the banks of Saraswati in the Yamuna-Saraswati region. One of the tributaries of Yamuna viz. Markanda is probably named after this great sage. He is described in the Mahabharata as a great scholar, who knows the science of observation of the movement of sun,

moon, planets and the stars, by which he knew both past, present and the future. In the Vana Parva of Mahabharata sage, Markandeya describes about the Yuga system he developed to Yudhisthira. This Yuga system has a total duration of 12,000 years.

Manu's Flood in Rta Yuga

Bathymetry studies indicates massive floods in the Gujarat-Kutch area and submergence of many islands (including Dwaraka) in 12,500 BCE, 10,000 BCE and 8000 BCE. Dwaraka was formerly known as Kusasthali (the place of potters). Dwaraka-Kusasthali island region submerged and reemerged three or more times as per Mahabharata.

Archeologists needs to consider this while identifying Krishna's Dwaraka.

Last Glacial Maximum (LGM) was at 24,500 BCE and the Sea Level Minimum was at 19,000 BCE. Deglaciation in Artic started at 17,000 BCE) and in Antartic at 12,000 BCE

Geologically 12, 500 BCE is a very important date. Domestication of various types of plants and animals evolved worldwide by 12,500 BCE. This date is identifiable as the start of Rta Yuga based on the

Markandeya Yuga Definition (mbh. 3.187) found in Mahabharata. As per this definition Rta Yuga is 4800 years long; Treta, 3600 years; Dwapara, 2400 years and Kali, 1200 years, and thus the entire duration of the Chatur Yuga (Mahayuga) is 12,000 long years.

One Ascending Markandeya Yuga combined with one Descending Yuga is thus 24,000 years long which is approximately the period of precession of Equinox (Current Value of it is 25 772 years). Vedic texts indirectly derive a traditional value for this period as a multiple of 360 and 72 as 25,920 years ($360 \times 72 = 25,920$). This is codified in the Rig Vedic hymn about Kalachakra 1.164 in the stanzas 2,3,5 11 & 48.

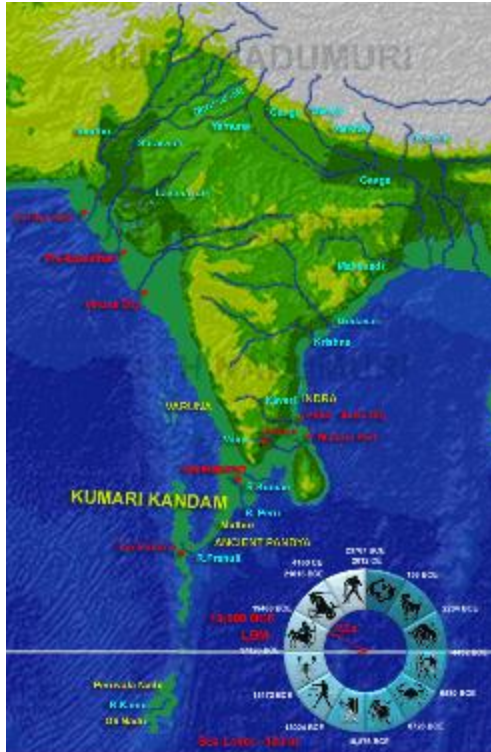


Figure 3: The submerged lands of peninsular India.

Due to the abrupt rise of Sea Level in 12,500 BCE (also in 10,000 BCE and 8000 BCE) the coastal regions of Indian peninsula submerged into the sea. A wide landmass from Gujarat to Kerala and a not so wide landmass from Bengal to Lanka submerged gradually resulting into the current shorelines of India. These flooding of landmasses can be identified with the Great Flood described in the Samskrit and Tamil texts. This resulted into migration from submerged lands into inland areas like Kerala, Pandya (southern Tamilnadu), Dwaraka (Gujarat) and Sindhu. Such migrations into Pandya

territory is mentioned extensively in Tamil texts. Manu, the ancestral-king, who escaped the Great Flood, is mentioned as the king of the Dravidas in the Puranas. Dravida is mentioned as a territory in southern India. This could mean that the Dravidas were those people, who migrated from the submerged lands to new shorelines. One such Dravida territory is mentioned to the north of Kaveri River spanning the shorelines of southern Andhra and northern Tamilnadu.

Manu is mentioned as escaping the Great Flood and bringing his people from the flooded lands reaching up to the Himalayas. This correlates with the settlements like Bhirrana (since 7570 BCE) and Mehargarh (since 7000 BCE).

Correlating the Yugas with SSC and Itihasas

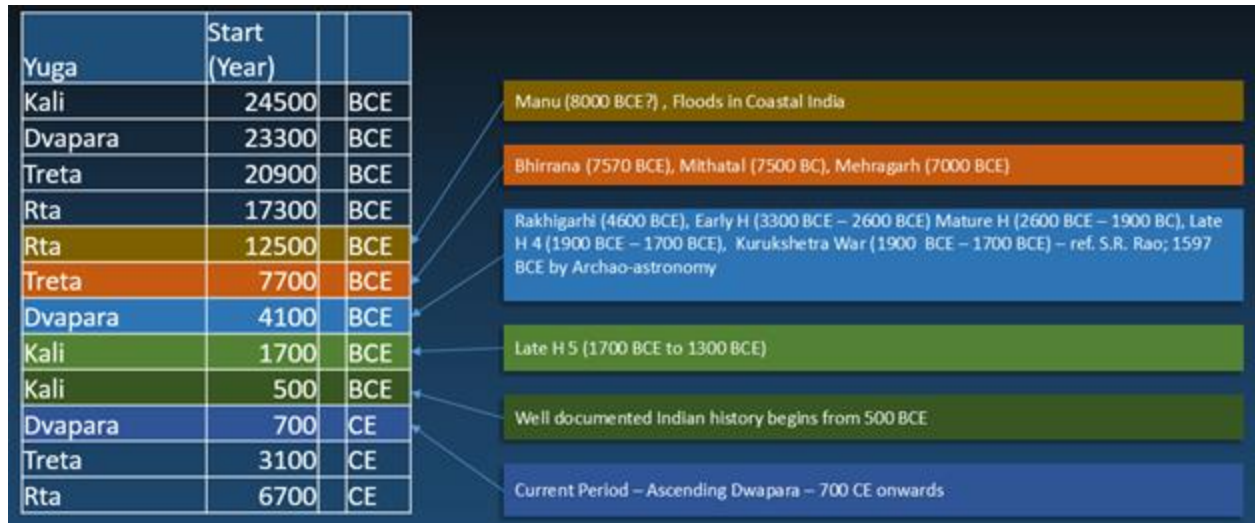


Figure 4: Correlating the Markandeya Yuga with SSC and Itihasas

One of the proposals of this paper is to use Markandeya Yuga System with a starting date of 12,500 BCE as an Indic or Bharatiya time-frame for chronological studies focusing on the events in the Holocene period. It can be used as an alternate time-framework to study or map the chronology of prehistory and archaeology of Bharatavarsha. It is an alternative for the currently used Western Indologist's time-frames used for the same purpose. It can be used irrespective of the accuracy of correlation with traditional-dates for Rama and Kurukshetra War as a good frame of reference for the post LGM (24,500 BCE) epoch, especially post 12,500 BCE Holocene period.

Rakhigarhi & the Aditya-Aila-Puru-Bharata-Kuru kings

The long lineage of the Aditya-Aila-Puru-Bharata kings can be correlated with the settlements like Bhirrana and Rakhigarhi.

Rakhigarhi as former capital of Aditya-Aila-Puru-Bharatas

Brahma (Prachetas) lived in Kurukshetra as per Mahabharata. Brahmavarta is mentioned as the place where Brahma worked, which was located in Kurukshetra – close to Tarandaka on Sarasvati (mbh.3.83, 84). Kurukshetra is mentioned as the northern sacrificial altar of grandsire Brahma. Daksha, Aditi, Vivaswat, Manu and Ila lived and ruled in Kurukshetra. Kurukshetra is mentioned as Ila's place viz. Ilaspada (correlating the references in Rigveda and Mahabharata). Pururavas, his wife Urvashi and son Ayus are mentioned as living in Ilaspada. Nahusha and Yayati (holy-spot of Yayata) lived & ruled in Kurukshetra. Puru and his lineage including Riksha and Dushmanta lived in Kurukshetra. Bharata and his lineage including

Suhotra, Hasti, Ajamidha and Samvarana lived in Kuru region.

The region was dotted with hundreds and thousands, of sacrificial stakes during the reign of Suhotra (mbh. 1.94). Hasti established Hastinapura (mbh.1.95).

Thus, the Pre-Ailas (Adityas) and the kings from Pururavas to Samvarana (Ailas, Pauravas and Bharatas) lived in the region containing Bhirrana (with settlements since 7570 BCE) and Rakhigarhi (the largest excavated Harappan settlement (with settlement since 4600 BCE). Thus, Rakhigarhi could as well be the ancient capital of this long lineage of Aditya-Aila-Puru-Bharata kings up to the Bharata king Samvarana.

Considering 35 to 36 generations of kings up to Samvarana, the duration involved is 1250 or more years from 4600 BCE to 3350 BCE.



Figure 5: The Aditya-Aila-Puru-Bharata-Kuru lineage

Samvarana migrates from Yamuna-Saraswati Region to Sindhu

Migration of Samvarana to Sindhu is detailed in the Adi Parva of Mahabharata. When attacked by Panchalas, Samvarana fled with his wife, ministers, sons and relatives and lived in the forest on the banks of the Sindhu extending to the foot of the mountains (mbh.1.94). The mountains mentioned here can be identified as the Kirthar-Sulaimani ranges to the west of the Indus plane. IVC settlements like Mohan-jo-Daro could be the result of occupation of people who migrated along with Samvarana to this region, who turned the forest on the banks of the Sindhu extending to the foot of the mountains into cities like Mohan-jo-Daro. During the time of the Pandavas at Indraprastha, this region was ruled by king Jayadratha.

This also explains the homogeneity of IVC (Indus Valley Culture) and SVC (Sarasvati Valley Culture) through the migration of people lead by Samvarana from Kuru territories to the Sindhu territories. This also strengthen the terminology of a combined Sindhu-Sarasvati Culture (SSC), since both cultures are part of a single culture through this literary evidence, corroborating the archaeological evidence producing the same result.

The exiled Bharatas were mentioned as ruling in Sindhu for 1000 years (Mbh.1.94) resulting into large IVC cities like Mohan-jo-Daro there. The symbol of the exiled Bharatas were mentioned as horns of wild bull and tusks of the wild elephant. Bull and horns are part of symbols found in IVC.

King Kuru establishes again in Yamuna-Saraswati Region

Bharatas i.e. someone in the line of Samvarana, after 1000 years retook their capital (which, as per this paper could be Rakhigarhi) assisted by Vasistha and defeated the Panchalas. As per our calculation, this will be occurring post 2350 BCE. Samvarana's son (implying a descendant, since 1000 or more years elapsed) King Kuru established new field / town in Kurukshetra. This is identifiable with Jognakhere at today's Kurukshetra town. King Kuru can thus be dated to 2350 BCE to 2150 BCE. We can add as many as 200 years to compensate for less famous kings in anywhere in this long lineage of Aditya, Aila, Puru, Bharata kings. From Kuru to Arjuna is 10 generations, i.e. $10 \times 35 = 350$ years. Arjuna can thus be dated to 2000 BCE to 1800 BCE.

This will corroborate well with a Kurukshetra war date of 1900 BCE to 1700 BCE. S.R. Rao, based on archaeology of Dwaraka, Bet Dwarka and Kurukshetra found 1900 BCE to 1700 BCE as acceptable date for Kurukshetra War.

Kings like Pradipa, Santanu, Vichitravirya, Pandu, Arjuna, Abhimanyu, Parikshit, Jayamejaya, Satanika and Ashamedhadatta developed Indraprastha and Hastinapura. Arjuna to Ashamedhadatta is 5 generations which is 175 to 200 years.

Conclusion

Both literary evidence (Mahabharata) and Hydrology reveals that Saraswati emerged from Shivaliks as a rain fed river, but it originated close to the source of origin of Yamuna

The names Harappan or IVC are insufficient to define the extent of geography of the civilization excavated by archaeology. Names like Sindhu Saraswati Culture can better define the culture excavated along the Sindhu and Saraswati rivers. Kuru territory described in the Vedas and Mahabharata is the central region of SSC. IVC is identifiable with Sindhu kingdom of Jayadratha.

Settlements of Gujarat falls in Dwaraka – Anarta territories.

Analysis of Balarama's travel along Saraswati ending at Yamuna, corroborate the finding that Saraswati was a rain-fed river originating near Yamuna and flowing along Gagghar-Hakra channel, and it was partially dried up. Interesting pattern emerges on the IE Dispersal, when analyzed using OIT and Itihasa like Aditya-Daitya-Danava split and Puru-Anu-Drahyu split, with Avestans identified as Daityas and Danaans identified as Danavas. SSC was composed of Naga-Puru-Yadu ethnicity. Naga, Yadu, Puru symbols are found profoundly in SSC. Markandeya Yuga System of 12,000 years is a good time-framework to describe Holocene events and SSC chronology. Rakhigarhi could be a former capital of Aditya (Pre-Aila)-Aila-Puru-Bharata kings. Samvarana's migration from SVC to IVC reinforces the connections between the two cultures (IVC and SVC).

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